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## CONGRESS OF THE UNITED STATES HOUSE OF REPRESENTATIVES

January 7, 2010

1801 "I" STREET BEDFORD, IN 47421-4223 (812) 277-9590 www.stevebuyer.house.gov

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Ms. Joyce K. Frank Acting Assoc. Admin. for Congressional Relations Environmental Protection Agency 1200 Pennsylvania Avenue, NW Room 3426 ARN Washington, DC 20460

Dear Joyce:

Enclosed please find correspondence I received from Jeffrey Ulrey requesting my assistance. Because of the nature of the inquiry, it is being referred to you for your consideration.

Please forward your response to Karin Davenport of my staff at my Washington, D.C. Office. Feel free to contact my office if you have any questions or need additional information.

Thank you for your attention to this matter. I look forward to hearing from you soon.

Best Regards,

Steve Buyer /

Member of Congress

SB/kd

and the second second

Representative Steve Buyer 100 S. Main Street Monticello, IN 47960

RE: Proposed EPA Regulations Regarding the Disposal of Coal Combustion Products (CCP's)

Dear Representative Buyer,

Attached is an eight page letter addressed to Governor Mitch Daniels outlining my thoughts and comments regarding the EPA's upcoming proposed draft rulemaking. The EPA has been working on this proposal, developing new regulations for the disposal of coal combustion products (CCP's) for over a year now. It is currently in front of the Office of Management and Budget (OMB), who is soliciting comments from stakeholders, industry leaders, and environmental advocacy groups. Typically a lengthy drawn out letter discussing a very non sexy subject is no way to get noticed or heard. So I hope this does not get dismissed or worse yet, hit the shredder or waste basket. But it is a very complex subject and the outcome of this policy change will greatly affect this state's economy, jobs, and tax payers heating/cooling bills. My goal was at least to make the political decision makers in this country and state aware that these choices are coming fast and it is time to weigh in on them if they have not already. It is my sincere hope that you consider all the facts on this subject diligently and wisely and speak your mind to the powers that will ultimately make these crucial decisions.

Sincerely

Jeffrev H. <sup>V</sup>lilrev

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**WINDLESS** 

December 22, 2009

Governor Mitchell E. Daniels Office of the Governor Indiana Statehouse Indianapolis, Indiana 46204

RE: Proposed EPA Regulations Regarding the Disposal of Coal Combustion Products (CCP's)

Dear Governor Daniels,

I will send a copy of this letter to our two Senators from Indiana, to each Indiana State Representative, the Office of Management and Budget (OMB) and of course the USEPA. I chose to address you and your office first because I find you a man of Integrity (in a political world that is severely lacking that quality) and a person who embraces visiting and listening with the common folk and citizenry of this State. Even though you probably meet literally thousands of people each year I have had the good fortune to see you at Butler basketball games and shake your hand a few times, once at an I.U. football game and earlier this year in your office. The meeting in your office was actually the result of the hard work of my son Joseph and his 6<sup>th</sup> grade Northwood Elementary (Mooresville) classmates who were being honored for winning an age group state championship for Project Citizen. They presented to you that day a version of their winning presentation about the White River, their pollution studies, sewage overflows, erosion control methods and general need to protect our valuable State waterways. You took the time out of your schedule to meet those kids and listen intently to their findings, they won't soon forget, meeting the Governor and their trip to the Statehouse. I hope it also demonstrates for my family and the parents of the other children that we take seriously the stewardship responsibility entrusted in us to protect our natural resources (especially clean water) and be aware of what is going on around us. It is my hope that this letter finds its way through your advisors and staff members and lands on your desk for your personal review.

The views I am about to express here are my own personnel thoughts and opinions. They are not representative of the company I work for, or the clients and customers I represent. They are my own.

I have sat on my comments about this subject for almost a year now but l'cart sit on there no longer ! was always of the thought that cooler heads, common sense and just plain technology and basic science would prevail. My thought was that there were a lot smarter people then me working on the end that once the emotions had subsided proper changes would be implemented and we as an industry would get back to beneficially reusing these valuable products and develop new ones for future generations to come. What I have come to realize unfortunately, is that this subject is really not about coal ash, the science behind it, what it is capable of providing this country as a raw material or even the potentially negative environmental impacts of misuse or mishandling of it. It's about Politics, it's about agendas, and it's about special interest, lobbying power and big government vs. big industry. They (Washington politicians and politically motivated environmental watchdog groups) have taken an engineering failure of an impoundment pond at TVA's Kingston coal fired power plant (regardless of the colossal magnitude, it was an engineering failure) and turned it into a tool (an environmental tool, the perceived toxicity of coal ash) of sledgehammer proportions to attempt to run the coal industry in this country out of

business. At least fast forward its demise in the name or mantra of a new "clean energy" policy for the future. Those same people have taken the emotional subject of public health and environmental scare tactics to potentially hamstring this country in a negative way for generations to come. It is purely political and it is disheartening to sit back and watch what is happening. I think, in the unholy name of the evil greenhouse gases I believe this country has forgotten that it is the Saudi Arabia of coal reserves. When there is inexpensive energy source that will last for hundreds of years right under our fingertips it is scientifically foolish not to explore every way possible to utilize those reserves in the cleanest most efficient way possible. Handle the byproducts that the combustion of coal produces in a responsible manner and maximize the benefits these byproducts provide us. Let science and innovation drive the timeline to the new energy sources of the future. I believe it is called transition. The time is not right to wreck a system that provides relatively cheap power to a country that is struggling in one of the worst economic situations of our generation. Why erode the situation further with bad policy that will do nothing more than increase heating and cooling bills of people who are already stretched to the max. A flawed policy change will actually increase the amount CO2 emissions, the very item that environmentalists are trying to combat. It will also drive up the cost of products and processes that utilize coal combustion byproducts as a raw material and replace them with virgin materials. The ripple effect of this potential policy change and legislation is staggering; I don't think billions of dollars scratch the surface of this situation. That is the real reason why I am writing this; the common man on the street doesn't even know what CCP's are let alone how they as individuals can be affected by the ruling. This is flying so far below the radar screen because of our country's other issues; the struggling economy, the war efforts, and the national health care debate that even local and national politicians don't grasp the ramifications of this upcoming policy change. What they are trying to do is sweep 130,000,000 tons of material per year under the rug with nobody seeing it.

Who am I and where to get the authority to talk on this subject in such detail? In May of 2010 it will be my twentieth year in the coal ash business, the eight previous years before that were spent in the aggregate manufacturing business. In those 20 years in the ash business I have done almost every job there is, that deals with CCP's. I am currently Director of Coal Ash Byproducts for a company located regionally here in central Indiana. The main reason I think I am qualified to speak intelligently on this topic is that for the majority of those years I was a guy in the trenches. I've been in operations, testing/quality control, R & D, sales, DOT specification committees, management and have worked in the past and present with multiple state regulatory agencies in the permitting process. In my early years I've ran fly ash transfer stations, loaded trucks, rail cars, and barges. I've crushed it, screened it, washed it, spread it agriculturally, built roads, parking lots, embankments, stabilized soils, and managed storage pond operations. I've also seen the nasty dirty side of handling a fine grain powder like fly ash, sometimes it has taken several weeks to totally remove all the fly ash particles from your nose, ears, eyes and other assorted body parts when doing a particular job. I've even had the grand experience of getting heavy equipment stuck in impoundment ponds and experiencing some of the danger associated with managing these products. Let's just say I have been around Coal Combustion Products (CCP's) literally and figuratively just about all my life. I believe I have some qualifications to say a few words about the subject.

When I was in research development and then sales I always had a personal code that I would not sell or market to someone else a product or process involving the use of a CCP that I would not use or handle myself. I always brought it from the laboratory to home for my final evaluation, much to the chagrin of my wife and the clutter of my garage. Every agricultural CCP I ever tested was used on my own property. Every bottom ash sand, aggregate, and cement additive I ever used somehow I involved my children in the evaluation process or built something with it at home. I would obviously never do that if

there was ever a remote chance that I thought they could be harmed or be a part of a health risk. This personal code I had was how I slept at night and felt good about myself. The projects completed and products made from coal ash byproducts that I or the companies I have worked for are a sense of pride and comfort that they were done right. My oldest daughter even received a grade of "A" on her science fair project years ago studying the use of Class "C" fly ash in soil stabilization compared to other commonly known powders. I am not a chemist by any stretch of means or close to an expert in that field but being involved in the sampling and testing over many years, reading and evaluating hundreds of leachate tests and basic chemistry reports for compliance does give one a certain comfort level and familiarity of these products.

In a nutshell, the new coal ash regulations proposed by the EPA comes down to whether these products are hazardous or not.

By definition CCP's are *not hazardous* by the criteria that the EPA has used for decades: corrosivity, ignitability, reactivity, and toxicity. The definition of those four categories can be found under 40 CFR 261, Subpart C. CCP's do not qualify as a hazardous material by all the same standard scientific practices used for years to determine whether any material is hazardous or not. For any of the four categories the testing criteria still tells us that CCP'S *do not qualify for a hazardous determination*. So why all of a sudden would they be now? Has science changed? Are there new rules? New procedures? Why does the game change now? Does ash now become hazardous because a dam broke?!

The simple answer is no, or at least it shouldn't. Unfortunately, the more complicated answer centers around the toxicity category. Coal ash does not full the toxicity definition under 40 CFR 261, Subpart C.

(a) A solid waste (except manufactured gas plant waste) exhibits the characteristic of toxicity if, using the Toxicity Characteristic Leaching Procedure, test Method 1311 in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods." EPA Publication SW-846, as incorporated by reference in §260.11 of this chapter, the extract from a representative sample of the waste contains any of the contaminants listed in table 1 at the concentration equal to or greater than the respective value given in that table. Where the waste contains less than 0.5 percent filterable solids, the waste itself, after filtering using the methodology outlined in Method 1311, is considered to be the extract for the purpose of this section.

(b) A solid waste that exhibits the characteristic of toxicity has the EPA Hazardous Waste Number specified in Table 1 which corresponds to the toxic contaminant causing it to be hazardous.

Actually, coal ash passes the Toxicity Characteristics Leaching Procedure (TCLP) test quite handily and with a substantially wide cushion for the eight Resource Conservation and Recovery Act (RCRA) metals in the list: Arsenic, Barium, Cadmium, Chromium, Lead, Mercury, Selenium, and Silver. All other contaminates listed for a hazardous waste determination in that list are not present in coal ash. Remember, for you politicians a TCLP test is an acid extract test (trying to simulate the worst possible conditions the ash could be in) and purposely trying to drive the metal concentrations out to measure them in parts per million. Other leachate test procedures are far less stringent in trying to determine if a metal concentration will exit a product by leaching. There is a neutral leach which uses deionized water as the extract and one of the most accepted ones which mimic rain water is the SPLP test or synthetic precipitation leaching procedure. It uses an extract with a pH of common rainwater. By definition and science, coal ash does not meet the definition of a hazardous waste. No way, no how!

So why all the fuss over a hazardous waste definition/ determination and potentially billions of dollars at stake if an industry layman can explain it away in three paragraphs? That's where it gets sticky. The single biggest reason I believe this whole subject matter is so volatile is the sheer volume of byproduct

produced. A staggering number of 130,000,000 tons of coal combustion product per year is produced in this country. The only waste stream bigger is mining waste from the extraction of minerals, aggregate (crushed stone and sand & gravel), and coal. Year after year it has to find a home (other than landfills) and the industry has done a tremendous job. Almost 61,500,000 tons was beneficially reused in 2008 (44.5%), that is an incredible number and one that will continue to rise as demand increases (conserving of natural resources) and innovation increase. However if it is deemed hazardous all the green initiative goes away in a snap of the finger. Do you realize that conservatively 65% of every yard of concrete in the country has fly ash in it (some metropolitan areas are much higher)? That number is probably higher in our infrastructure, roads and highways. Try building a waste water treatment plant in your community that does not have fly ash in the concrete specification. Fly ash makes concrete better, stronger and greener, (reference info@acaa-usa.org or www.coalashfacts.org ) for all the facts figures and concrete products produced with fly ash. Crushed concrete recycling into aggregate is arguably the single most successful recycling program in the USA, what about all the fly ash in that concrete. Does that all stop because of potentially hazardous fly ash? What about the drywall wallboard used in all construction and building? 8.5 million tons of FGD gypsum was used to make new wallboard last year. That number is closing in on half of all gypsum produced in this country will be synthetic. Mined virgin gypsum will all but go away in the years to come because synthetic is purer and less expensive to make a final product with. Does that potential ruling make it all hazardous now?

Does the Hoosier sitting at home in his easy chair who inexplicably punches his drywall after a Colts turnover contaminate his family and home because there is now FGD drywall dust floating around? That same Hoosier storms out of his family room into his garage across the concrete slab (made with fly ash) onto his concrete driveway (made with fly ash) to his backyard patio made with pavers (fly ash) landscaped with segmental retaining wall blocks (fly ash and bottom ash) grabs a ladder to climb up to the roof (where the shingles are made from a CCP, boiler slag) to adjust his Christmas lights (which are powered by coal) from a coal mine in Indiana that he might just work at. But no, he is not finished yet. Still ticked off by the turnover the frazzled Hoosier jumps in his car, drives over some of the buried utility lines that were backfilled with flowable fill (made with fly ash) onto a subdivision road who's road base was stabilized with (class C fly ash) and onto the asphalt surface (which could have had a mineral filler. fly ash in it or boiler slag aggregate) towards the grocery store. He turns onto a county road (whose road base was built from compacted comingled bottom and fly ash), drives underneath an overpass (whose embankment fill utilized DOT approved bottom and fly ash) but gets stuck behind a salt truck using a mixture of (bottom ash sand) and salt for snow and ice control. The grocery store he chooses to go to was located in a strip mall built upon a sub grade structural fill comprised of hundreds of thousands of tons of compacted CCP's (bottom and fly ash). Entering the store which was built out of concrete tilt up walls that used cement that was made using (fly ash) as a raw ingredient whose tile floors were grouted (fly ash) for a lovely architectural finish, he rushes to the snack isle to purchase corn chips whose corn was grown in a central Indiana farm field that spread (you guessed it, FGD gypsum) on the soil as a soil amendment (to break up tight clay soils) and a source of nutrients (sulfur and calcium) for a healthler higher yielding corn plant. The local Hoosier came full circle from punching his FGD made wall to consuming it in his chips.

CCP's are everywhere in our lives and products. They are safe and reliable and are part of the economic fabric of this nation. If these products were ruled has hazardous the trickle down domino effect could indeed be catastrophic from an economic standpoint (the cost of goods and services will increase substantially) as well as an environmental standpoint. The cost of litigating this issue (there will be litigation either way if a compromise cannot be reached) is staggering but environmentally it is literally almost too much to comprehend. Can you imagine how many hazardous waste landfills it would take to

handle 130,000,000, tons per year for the next 50, 60, 70 years? Can you imagine an environmental group advocate turning a blind eye to 15,000,000 more tons of cement to be produced per year and the subsequent CO2 being produced? Can you imagine the political wrangling for communities not wanting a hazardous waste landfill in their community? It would take 10 years just to get one permitted and we would be talking several giant landfills per state. There is not even enough certified equipment to hauf it, what if there was a spill? What about travel routes through cities, the costs involved here are simply incomprehensible and unfathomable because of these volumes.

By the way, the upset Hoosier is doing OK. He made it back in time for the second half while Peyton Manning directed another stirring fourth quarter comeback and the Colts went onto yet another victory. His wife even patched up the hole in the wall with patching compound, (made with FGD gypsum) by the way.

Seriously, getting back to the issue at hand and providing some ideas on how to solve it. As was stated earlier the sticky part of this subject is really not the hazardous debate but the volume of coal ash there is to deal with as well as the current status of onsite (Utility) CCP storage practices. Just because CCP's are not a hazardous material does not mean they can't be a culprit to contamination problems and potential health risks (mainly to water sources) if they are not handled properly or beneficially reused. When environmentalists or anti CCP people cite projects that have developed problems (which there are very few, especially as compared to the overall tonnage volumes involved) associated with coal ash almost every time there is usually a human error in judgment or ignorance or poor regulations involved. Human shortcomings such as an unscrupulous contractor, a greedy developer, dishonest marketer or a pressured utility manager trying to save on a disposal budget; might look the other way when it comes to solid decisions. Especially if a particular states regulations are interpreted as gray. Typically a failed ash project was put in a location that it never should have been in the first place (the incorrect geological strata) or was built improperly or ash was used that was not compliant to begin with. Again it reverts back to volume, knowledge of the chemical makeup, and how it is to be utilized or stored.

So called environmentalist's and anti coal/CCP political activists want CCP's declared hazardous not so much that they think it really is hazardous but because they feel it gives them control or jurisdiction over it (Federal, US EPA). It gives them enforcement teeth so to speak, whereas most state control over these byproducts is soft, easy to manipulate, and is controlled by the industrial/political clout of the state they are in. Indiana for example is a coal state, whose economy feeds off of coal and thus use of the byproducts is promoted, there are lax laws and guidelines for it are gray and easily maneuvered around. If they don't grab control now in light of the Kingston disaster they never will get it. It is a goal of theirs to get it declared hazardous at any cost and they will overlook any sane argument in order to gain control.

The issue of toxicity and the term toxic is also misused and over dramatized in the media to gain attention and sensationalize coverage to their advantage. The definition of toxic is: pertaining to poison; poisonous, and toxicity is the quality of being toxic, degree or intensity of virulence of a poison. Again, the TVA Kingston Plant disaster was an engineering failure not a toxicity issue. The dam broke. If 5.5 million tons of Cheerios and 11 billion gallons of milk were spilled down that river valley it was going to be an environmental disaster of epic proportions. Fish can't swim and breathe in solids. Don't get me wrong, I am not making light of what happened. I was sick to my stomach and if I would have awoken to six feet of fly ash muck on my front porch or worse, someone was going to pay dearly. I wouldn't expect any of those people in that valley to be big fans of CCP's.

Over abundance of anything can be toxic. For example fluoride is an important element of your body and you require 2-4 milligrams per day for healthy body functions. Now if you happened to eat 10 tubes of toothpaste the fluoride in the paste could be toxic and make you sick. Now is fluoride toxic or not, it can be if it is not used correctly. The same can be said of CCP's, if they are not used properly or handled properly or stored properly there are increased chances that a problem can occur. Don't allow them to be used or put them in a position to fall or harm anybody! But along those same lines don't throw the baby out with the bathwater. Just because you have to be careful with some beneficial reuses don't hamper all the other uses with a foolish designation like hazardous. Remember, and this should be a slogan somewhere (I wish I would have come up with it); Beneficial reuse is not the problem, it is the solution.

Simple science lesson: 96% of the human body is made up of four elements; carbon, hydrogen, nitrogen, and oxygen. The rest is major elements (Macrominerals): calcium, chlorine/chloride, magnesium, phosphorus, potassium, sodium, sulfur, and trace elements (micro minerals): chromium, copper, fluoride, lodine, iron, manganese, molybdenum, selenium, zinc, arsenic, boron, cobalt, germanium, nickel, rubidium, silicon, and vanadium. These are all important essential elements for life and good health. You might have also noticed that several of these are on the test reports used to determine hazardous levels or toxicity. You might also notice that if you walk down the grocery isle and pick up a bottle of your favorite multiple vitamin, say Centrum Silver, that all of these elements are in there too. They are taken orally to get the daily required vitamin and minerals you body requires. My point is this, don't be afraid of these terms, use them and the scientific test data available to make good solid decisions. These are the elements and minerals that this earth is made up of, soil, rock, plants and they are everywhere, even the rest of described heavy metals, (barium, cadmium, lead, mercury, and silver) that we need to pay closer attention to are naturally occurring. They are going to be there whether coal ash is around or not. That is why they need to managed properly. Don't fear them, utilize them. If every natural construction material in use today had to come under the same scrutiny and test parameters as coal ash did nothing would ever get built, nothing would pass as "safe". What has this country come to, the people are afraid of their own shadow or at least they are told to be with our ability to test analyze everything to the minute detail. Every energy saving light bulb in our houses today is filled with mercury but no one says a thing, ever break one? I would like to know the concentration of mercury in one light bulb as compared to a ton of coal ash. Ever go to a little league game in the summer and see the dust stirred up in the limestone parking lot? That's crystalline silica. Do you know what crystalline silica does to mucus membranes of your lungs? No one says a thing. What are we coming to, where is the common sense?

A prime example is the use of FGD gypsum in agriculture. Synthetic gypsum is one the most amazing byproducts ever. It actually could be considered manufactured because of all the quality control that goes into scrubbing the sulfur out of the flue gases. It actually is not even part of the combustion process at a power plant but a lime and water mixture that removes sulfur from the stack gases. Once two molecules of oxygen are added the resulting byproduct is pure calcium sulfate. FGD gypsum is more consistent and pure (96%) than mined virgin gypsum. Gypsum has been used in agriculture for hundreds of years to loosen up tight clay soils letting water and oxygen penetrate deep into the soil structure. By letting water in instead of running off, it prevents soil erosion and keeps fertilizers, pesticides, and herbicides from contaminating the waterways. Now that it is available economically on a commercial basis to growers it could become the single greatest water pollution control device in agriculture that we have ever known. Can you imagine the impact on water quality improvement with the mass reduction of nitrogen, phosphorus, chemical runoff to the watersheds and eco systems? Plus the farmer gets a soluble nutrient application of pure calcium and sulfur, which every growing plant

requires. Just weigh the risks vs. rewards when judging the use of FGD gypsum in agriculture before making a decision or lumping it in with other CCP's. From every bit of data I have ever seen there is zero risk and incredible environmental reward.

Finally, after six pages of freely expressing my thoughts on this subject I will offer what I feel is a fair and reasonable solution on this subject and would like the USEPA to consider adopting these ideas into their proposed policy changes or new legislation.

## Proposed Ideas for USEPA's Draft of New Rules Concerning the Use and Disposal of CCP's

- 1. CCP's need to be declared non-hazardous period. Hybrid rules and exemptions to certain beneficial use categories like concrete, roofing shingles and wall board just will not work. There is no way the public or industry using these products is going to buy into the theory that if coal ash handled on one side of the street is OK and nonhazardous but if handled on the other side of the street they are considered hazardous and detrimental to a person's health and safety. It just does not make reasonable sense. They either are or they are not, there is not an inbetween regardless of the proposed use exemption. Industry will flat out not use these materials because there is too much potential of future liability; it is not worth the risk. For example when concrete or wallboard is removed to be disposed of or recycled does it all of a sudden become hazardous again since it is unbound. Besides that type of ruling still requires the colossal task of building dozens and dozens of hazardous waste landfills.
- 2. All coal ash wet impoundment ponds to be eliminated. This is extremely costly but is absolutely necessary in the wake of the Kingston disaster. The vast majority of power plants are built next to waterways and the risk to the water systems and potential failure of aging dykes and containment berms is too dangerous to human health and safety. The cost of power in this country just went up substantially because of this but it is necessary. There should be a multiyear phase out time frame for this changeover from wet collection to dry collection. This will effectively force some power plants to close their doors because of the increased cost. The desired design and specification of the onsite monofills will be determined and debated (meaning clay liner, synthetic liner or both as well as the leachate collection design, compaction specifications etc.). Minimum coal ash testing and federal reporting standards will be put in place. Which means each source will have to be registered and certified blannually (TCLP) as compliant for a non hazardous material. Time frames for sampling will be established (take it out of the utilities hands), sampling protocol, and chain of custody to a state approved laboratory. If material is cleared for beneficial reuse then it will have to meet that particular states more stringent leachate parameters by use category (WDNR 538 guidelines) prior to any approval for beneficial reuse.

3. The USEPA will establish minimum threshold requirements and mandate that each State adopt a beneficial use code for industrial byproducts. Mirror and copy the State of Wisconsin's DNR 538 Code but allow the individual States the leeway to customize it to fit their states geography, geology, and hydrology as well as matching it to its main industries such as agriculture, mining, forestry, aggregates etc. Make it workable while protecting the citizen's environmental safety and well being. This will clear up all gray areas that are still a problem in some states. It is basically a building and engineering code for ash usage. This way even structural fills and embankments can still utilize CCP's (last year 11 million tons were used in structural fills). Standards can be kept and enforced where the rules are clear for the end user, the contractor, marketer, the utility, and the general public. There is no wondering whether it is right or wrong, it either meets the standard requirements or it doesn't.

In closing, this lengthy letter had one goal in mind. That was to inform the political decision makers of this state and bring them up to speed on a very complicated and controversial subject matter. There is no way I could cover it all or do justice to all the science involved but I did my best and now I hope you will take it, gather further information and discuss all of it with your fellow constituents. It is my hope that the proper choices will be made.

Respectively Yours,

Jeffrey H. Ulrey

mater statements

HAMM